

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An automatic notification and remote access method for diagnosing real-time in vivo images from a location remote from one or more in vivo video camera systems, comprising the steps of:

a) capturing multiple sets of real-time in vivo images using the one or more in vivo video camera systems;

b) forming an in vivo video camera system examination bundle of a patient that includes the real-time captured in vivo images for each of the one or more in vivo video camera systems;

c) image processing in vivo images in the examination bundle in a generalized image color space for robust disease detection;

d) using image processing algorithms to automatically detect ~~automatically detecting one or more abnormalities in one or more of the in vivo images in the generalized image color space~~ the examination bundle;

e) signaling an alarm provided that the one or more abnormalities in the examination bundle have been detected;

f) receiving an automatic notification via one or more unscheduled alarming messages from one or more randomly located in vivo video camera systems;

g) routing the automatic notification including information on in vivo camera travel distance in GI tract to remote recipient(s); and

h) executing one or more diagnosing tasks corresponding to the automatic notification by examining in vivo images captured in a finite temporal range around the alarming signaling time.

2. (Original) The method claimed in claim 1, wherein the unscheduled alarming messages correspond to a detection of an abnormality found in the patient's GI tract.

3. (Original) The method claimed in claim 1, wherein the automatic notification includes patient metadata describing the patient's medical history and location.

4. (Original) The method claimed in claim 1, wherein the one or more randomly located in vivo video camera systems are located in different geographic regions of a country and/or a continent.

5. (Previously presented) The method claimed in claim 1, wherein the step of routing the automatic notification to the remote recipient(s), further comprises the steps of:

providing a communication channel to the remote recipient(s); and
providing the remote recipient(s) with the automatic notification of a detected GI tract abnormality.

6. (Original) The method claimed in claim 1, wherein the unscheduled alarming messages operate within a two-way messaging system.

7. (Original) The method claimed in claim 1, wherein the remote recipient receives messages by utilizing a two-way messaging system.

8. (Original) The method claimed in claim 1, wherein the remote access is accomplished by a communications network for retrieving and/or sending the patient's in vivo images from multiple locations either inside or outside of a clinical environment.

9. (Previously presented) The method claimed in claim 1, wherein the step of forming the examination bundle, includes the steps of:
forming an image packet of the captured in vivo images of the patient;
forming patient metadata; and

combining the image packet and the patient metadata into the examination bundle.

10. (Previously presented) The method claimed in claim 1, wherein the step of processing the examination bundle includes the steps of:
separating the in vivo images from the examination bundle; and
processing the in vivo images according to selected image processing methods.

11. (Previously presented) The method claimed in claim 1, wherein the step of processing the examination bundle includes applying image processing algorithms to an image portion of the examination bundle.

12. (Previously presented) The method claimed in claim 1, wherein the step of
automatically detecting one or more abnormalities in one or more of the vivo images in the examination bundle is based on predetermined image criteria for the patient.

13. (Previously presented) The method claimed in claim 1 wherein the step of automatically detecting one or more abnormalities in one or more of the vivo images in the examination bundle is based on predetermined image criteria for the patient employing image data transformation and detection.

14. (Previously presented) The method claimed in claim 1, wherein the step of processing the examination bundle includes:
transforming image data of an image portion of the examination bundle to a generalized color space; and
detecting the one or more abnormalities by applying thresholding.

15. (Currently Amended) The method claimed in claim 14 wherein the step of applying thresholding is accomplished by applying lower and higher thresholding or higher thresholding in the generalized image color space.

16. (Currently Amended) A method, comprising:
capturing a real-time in vivo ~~image~~images;
automatically detecting an abnormality in a generalized image color space in real-time in the in vivo ~~image~~images; and
signaling an alarm with information on in vivo camera travel distance in GI tract in real-time when the abnormality is detected.

17. (Currently Amended) A method, comprising:
capturing a real-time in vivo ~~image~~images;
automatically detecting an abnormality in a generalized image color space in real-time in the in vivo ~~image~~images by comparing the ~~image~~images to abnormality feature templates; and
signaling an alarm with information on in vivo camera travel distance in GI tract in real-time when the abnormality is detected.